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# **Arming China**

## **Major Powers' Arms Transfers to the People's Republic of China**

### **Abstract**

The rise of China on the world stage has been fuelled by a massive military modernisation programme relying, in large part, on the acquisition of foreign military equipment. The question of how the world's major powers define their arms transfer policies toward China is therefore crucially important. This article makes two original contributions. First, drawing on Neoclassical Realism, it proposes an explanatory framework integrating international and domestic factors to explain variations in major powers' arms transfers. Second, based on a large body of elite interviews and diplomatic cables, it offers the first comprehensive comparison of American, British, French, and Russian arms transfer policies toward China since the end of the Cold War.

**Keywords:** Major Powers, China, United States; Britain; France; Russia; Arms Transfers, Military Modernisation

**Word count** (main text): 11,500 words

## Introduction

The rise of the People's Republic of China (PRC) on the world stage has been fuelled by massive military modernisation that has relied to a large extent on arms imports. China's demand for arms has been motivated in part by immediate imperatives to field advanced foreign defence systems acquired 'off-the-shelf' to enhance its military capabilities.<sup>1</sup> The primary driver of the PRC's arms import strategy, however, has been to exploit access to foreign defence-related technology and knowledge as a means to achieve national defence industrialisation. China's domestic arms industry could not meet the demand for advanced conventional arms systems and therefore the People's Liberation Army (PLA) looked to foreign suppliers. As Tai Ming Cheung shows, the PRC's 'defence science, technology and industrial system has been undergoing far-reaching transformation over the past two decades and the single biggest factor in this turnaround is the role of external technology and technology transfers and the defence industry's improved ability to absorb these inputs and convert into localised production'.<sup>2</sup> To achieve this transformation China emerged as the world's second largest importer of conventional weapons during the post-Cold War era (1990-2015).<sup>3</sup>

China's arms spending spree and increasing defence industrialisation have given rise to concerns regarding regional and global stability and over a potential power transition war between the U.S. and the PRC. As China's re-emergence in world politics is reconfiguring the distribution of power in the international system, how major powers define their arms transfer policies toward the PRC is of critical importance for academic and policy purposes. The other four permanent member states of the U.N. Security Council (P5) have consistently appeared among the top five arms exporters over the past twenty-five years. Taken together, the United States, Russia, France and Britain have accounted for 70 per cent of global arms transfers in the past three decades.<sup>4</sup> Accordingly, in examining 'who is arming China?', this article explores the patterns and variations in the P5 arms transfer volumes to China since the end of the Cold War in response to Beijing's search for inward technology transfer to develop its arms industry and armed forces.<sup>5</sup>

Since the Tiananmen Square crackdown of 1989, the P5 have adopted distinct arms transfer policies toward China, resulting in significant differences in the volume of their arms transfers to the PRC (Figure 1, Table 1). The U.S. has enforced a highly stringent arms embargo towards China. It has also pressured its allies and partners into pursuing a similar approach. France and Britain both implement a loose and legally non-binding European Union (E.U.) arms embargo.<sup>6</sup> However, France and Britain, to differing degrees, have authorised the transfer of non-lethal defence equipment to China. Russia has been by far China's main arms supplier during the post-Cold War period, but displayed a significant reduction in its export volumes from the mid-2000s onward.

### Figure 1

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<sup>1</sup> Richard Bitzinger and Ken Boutin, "China's Defence Industries: Change and Continuity," in *Rising China: Power and Reassurance*, ed. Ron Huiskens (Canberra, The Australian National University: ANU E Press, 2009); Tai Ming Cheung, *Fortifying China The Struggle to Build a Modern Defense Economy* (Ithaca, NY: Cornell University Press, 2013).

<sup>2</sup> Tai Ming Cheung, 'Innovation in China's Defense Technology Base: Foreign Technology and Military Capabilities', *Journal of Strategic Studies* 39/5-6 (2016), p. 728. In this article, "arms transfers" and "arms exports" are used interchangeably.

<sup>3</sup> Stockholm International Peace Research Institute (SIPRI), "Top List TIV tables," accessed November 16, 2016, <http://armstrade.sipri.org/armstrade/page/toplist.php>.

<sup>4</sup> Other countries have also transferred defence equipment to China, notably Ukraine and Israel, who accounted for, respectively, 4.8% and 0.1%, of Chinese imports over the past fifteen years (2001-2015) (SIPRI, "Top List TIV tables").

<sup>5</sup> The article focuses on the export of military equipment and articles, i.e. specifically designed, developed, or modified for a military application. Exports of dual-use items fall outside the scope of this paper. Dual-use refers to commodities, software, or technologies that have both commercial and military applications.

<sup>6</sup> The European Union embargo is a non-binding political declaration, which leaves it open to national interpretation. The British and French interpretations of the arms embargo can be found at SIPRI, Arms Embargoes Database, "E.U. arms embargo on China," accessed September 22, 2015, [http://www.sipri.org/databases/embargoes/eu\\_arms\\_embargoes/china](http://www.sipri.org/databases/embargoes/eu_arms_embargoes/china).

Table 1

In tackling the question of the P5 states' arms transfers to a rising China, this article makes two original contributions, empirically and theoretically. Firstly, despite the substantial academic and policy relevance of major powers' arms transfers to the PRC, this is an under-explored area in the literature. While a rich body of works exists on the transformation of China's defence industry and on the role of foreign technology therein<sup>7</sup> – including a recent special issue of this journal –<sup>8</sup>, fewer studies have analysed the 'supply side', i.e. who is arming China. By drawing upon elite interviews, leaked diplomatic cables, a comprehensive review of official and open sources, this article provides the first in-depth comparative academic study of twenty-five years of major powers' arms transfers to China. Focusing on the P5 powers, it builds upon but goes beyond the few existing empirical studies that have separately documented U.S. export control policy toward China,<sup>9</sup> intra-European controversies of the early 2000s regarding arms supplies to China,<sup>10</sup> or Russian arms transfers.<sup>11</sup> No scholarly study had yet undertaken a cross-national comparison of P5 arms transfer policies toward China. This article fills this gap.

Secondly, drawing on Neoclassical Realism (NCR) the article proposes an explanatory framework that integrates international and domestic-level factors to explain variations in major powers' arms transfers. We show that variations in the volume of major powers' arms transfers to China depend, primarily, upon each state's threat assessment of the impact of China's rise on the global balance of power but also, consistently with NCR's tenets, upon a set of domestic intervening factors. The key original contribution of our theoretical approach is in the identification of these domestic intervening factors. We demonstrate that the volume of each state's arms transfers to China is affected by two domestic constraints on the *autonomy of the state's DTIB* (defence and technological industrial base), namely their dependence on (a) *arms exports* to the world market and (b) *arms imports* from foreign suppliers. The higher the level of export dependence of a state's DTIB, the greater the domestic pressures from its arms industry to increase exports, and hence the larger the volumes exported (and vice versa). Additionally, the higher the degree of arms import dependence of state A vis-à-vis state B, the greater

<sup>7</sup> See among others: Tai Ming Cheung (ed.), *Forging China's Military Might: A New Framework for Assessing Innovation* (Baltimore: Johns Hopkins University Press 2014); Richard A. Bitzinger, 'Reforming China's Defense Industry: Progress in Spite of Itself?', *Korean Journal of Defense Analysis* (Fall 2007); Richard Fisher, *China's Military Modernization: Building for Regional and Global Reach* (Stanford: Stanford University Press, 2010).

<sup>8</sup> James Char and Richard A. Bitzinger (eds.), 'Reshaping the People's Liberation Army Since the 18th Party Congress: Politics, Policymaking and Professionalism', *Journal of Strategic Studies* Special Issue 39/5-6 (2016). See notably: Tai Ming Cheung, 'Innovation in China's Defense Technology Base: Foreign Technology and Military Capabilities', *Journal of Strategic Studies* 39/5-6 (2016) 728-761; and Richard A. Bitzinger, 'Reforming China's Defense Industry', *Journal of Strategic Studies* 39/5-6 (2016) 762-789.

<sup>9</sup> Hugo Meijer, *Trading with the Enemy: the Making of U.S. Export Control Policy toward the People's Republic of China* (Oxford: Oxford University Press, 2016); Rajiv Nayan, 'U.S. Policy on Dual-Use Technology Transfers to China', *Strategic Analysis* 31/4 (2007) 553-581; Jing-Dong Yuan, 'United States Technology Transfer Policy toward China: Post-Cold War Objectives and Strategies', *International Journal* 51/2 (1996) 314-328.

<sup>10</sup> Nicola Casarini, *Remaking Global Order: The Evolution of Europe-China Relations and its Implications for East Asia and the United States* (Oxford: Oxford University Press, 2009), chapter 6; Jennifer Erickson, 'Market Imperative Meets Normative Power: Human Rights European Arms Transfer Policy', *European Journal of International Relations* 19/2 (2013) 209-234; Hugo Meijer, 'Transatlantic Perspectives on China's Military Modernization: the Case of Europe's Arms Embargo against the People's Republic of China', Institute for Strategic Research of the French Military Academy, No. 12 (2014); May-Britt Stumbaum, *The European Union and China: Decision-making in E.U. Foreign and Security Policy towards the People's Republic of China* (Baden-Baden: Nomos 2009); Oliver Bräuner, Mark Bromley, and Mathieu Duchâtel, *Western Arms Exports to China*, (Stockholm: SIPRI Policy Paper No. 43 (2015) 55-56.

<sup>11</sup> Robert H. Donaldson, John A. Donaldson, 'The Arms Trade in Russian-Chinese Relations: Identity, Domestic Politics and Geopolitical Positioning', *International Studies Quarterly* 47/4 (2003) 709-732; You Ji, 'Friends in Need or Comrades in Arms: the Dilemma in the Sino-Russian Weapons Business', in *The Global Arms Trade: A Handbook*, ed. Andrew H. Tan (London: Routledge, 2009) 52-64; Paradorn Rangsimaporn, 'Russia's Debate on Military-Technological Cooperation with China: from Yeltsin to Putin', *Asian Survey*, 46/3 (2006) 477-495; Elizabeth Wishnick, 'Russia and China: Brothers Again', *Asian Survey* 41/5 (2001) 797-821; Christina Yeung and Nebojsa Bjelakovic, 'The Sino-Russian Strategic Partnership: Views from Beijing and Moscow', *Journal of Slavic Military Studies* 23/2 (2010) 243-281.

the leverage of the latter to influence the arms transfer decision-making of the former. Thus, state B can pressure state A into denying exports to particular recipient states, even if state A has domestic pressures to export, so it is denied access to potentially lucrative arms export opportunities. This study shows that major powers' arms transfer policies – and specifically the variations in their export volumes – can be explained by the interplay of these international and domestic factors.

After identifying the shortcomings of alternative theoretical frameworks in the International Relations (IR) literature, the first section develops a NCR theory of arms transfers and puts forward its hypotheses. The second section then assesses these hypotheses empirically in the case of U.S., British, French and Russian arms transfers to China. In conclusion, we discuss the applicability of the framework to other cases, the implications of our findings, and avenues for future research.

## 1. A Theory of Major Powers' Arms Transfers

### International Relations and Arms Transfers: In Search of a Theory

The literature on arms transfers is voluminous but contains few theoretical frameworks for analysing patterns and variations in arms transfer policies. As Zarzecki observed, 'the level of descriptive data about the arms trade has thus far not been matched by an equally sophisticated level of theoretical analysis'.<sup>12</sup> Similarly, Kinsella characterised the existing arms trade literature as 'pre-theoretical'.<sup>13</sup> Several works have focused on the dominant position of the U.S. in the post-Cold War international arms trade.<sup>14</sup> But the only systematic attempt at conceptualizing international arms transfers is Krause's Cold War typology of arms exporter behaviour.<sup>15</sup> Krause's typology suggests the existence of a three-tiered international hierarchy of arms producing states. States are differentiated into one of three 'tiers' on the basis of their capacity to innovate and their motivations for arms production and export.<sup>16</sup> The three motivations for acquiring the means to produce and export arms, according to Krause, relate to the state's pursuit of power (tier 1), pursuit of wealth (tier 2), or pursuit of victory in war (tier 3).<sup>17</sup> While acknowledging the relevance of the motivations for arms exports identified by Krause (in particular the pursuit of power and of wealth), this paper seeks to go beyond a typology-building approach.

Influential IR theories inadequately explain the post-Cold War pattern of P5 states' arms transfers to China. Structural Realism (SR) would expect major powers' arms transfer policy to reflect sensitivity to relative gains concerns in the face of changes in the international distribution of military capabilities.<sup>18</sup> Based on relative power considerations, the U.S. hegemon seeks to restrict the military capacity of its

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<sup>12</sup> Thomas W. Zarzecki, *Arms Diffusion: The Spread of Military Innovations in the International System* (London: Routledge, 2002), 34.

<sup>13</sup> David Kinsella, 'The Arms Trade', in Christopher Coyne, Rachel Mathers (eds), *The Handbook on the Political Economy of War* (Cheltenham: Edward Edgar Publishing, 2011), 220.

<sup>14</sup> Jonathan Caverley, Ethan B. Kapstein, 'Arms Away. How Washington Squandered Its Monopoly on Weapons Sales', *Foreign Affairs* 91/5 (2012) 125-132; Stephanie G. Neuman, 'Power, Influence, and Hierarchy: Defense Industries in a Unipolar World', *Defense and Peace Economics* 21/1 (2010) 105-134; Richard Bitzinger, 'The Global Arms Trade and the "Hyundaization" Threat', *The Diplomat*, April 15, 2015.

<sup>15</sup> Keith Krause, *Arms and the State. Patterns of Military Production and Trade* (Cambridge: Cambridge University Press, 1995). Other exceptions include Neuman, 'Power, Influence, and Hierarchy: Defense Industries in a Unipolar World'; Keren Yarhi-Milo, Alexander Lanoszka, 'To Arm or to Ally? The Patron's Dilemma and the Strategic Logic of Arms Transfers and Alliances', *International Security* 41/2 (2016) 90-139. See also the 1971 SIPRI typology of arms suppliers. SIPRI, *The Arms Trade with the Third World* (Stockholm: Almqvist & Wiksell, 1971).

<sup>16</sup> Krause, *Arms and the State*, 31 and 97-98.

<sup>17</sup> Krause, *Arms and the State*, 12-18.

<sup>18</sup> Joseph M. Grieco, 'Modern Realist Theory and the Study of International Politics in the 21st Century', in Michael Brecher, Frank P. Harvey (eds), *Realism and Institutionalism in International Studies* (Ann Arbor: University of Michigan Press, 2002); Kenneth Waltz, *Theory of International Politics* (Maryland: Addison-Wesley, 1979).

main potential near-peer competitor, the PRC, by impeding Chinese military modernisation by limiting its access to foreign defence equipment. At the same time, SR would predict that the structural condition of unipolarity creates incentives for lesser powers to free-ride on U.S. security guarantees by simultaneously selling weapon systems to China for national economic gain whilst relying on security protection provided by the global hegemon.<sup>19</sup> However, whilst SR provides a plausible explanation for U.S. behaviour it cannot account for the major variations observed in the volumes of arms transfers to China by Britain, France and Russia.

Liberalism assumes that states do not seek to maximise a fixed 'national interest' but pursue particular combinations of interests preferred by the most influential domestic groups.<sup>20</sup> Liberalism would therefore expect states with large national defence industries to support their DTIB by seeking to maximise their arms sales to China. From this perspective, the lucrative nature of the Chinese domestic market incentivises national defence industries to exert pressure on states to authorise arms transfers to China to support the economic wellbeing of their DTIB. Although Liberalism provides insights into the domestic DTIB drivers of P5 states' arms transfers, it offers no systematic explanation of variations in the restrictiveness of P5 arms transfers to the PRC and of the establishment of arms embargoes by Western major powers.

Constructivism stresses the role of socialisation to international norms in shaping states' behaviour.<sup>21</sup> From this perspective, variations in arms export volumes would result from differing internalisation of international norms such as the respect for human rights.<sup>22</sup> Human rights concerns after the Tiananmen Square massacre were indeed the stated reason for the imposition of the U.S. and EU arms embargoes in 1989. Constructivist approaches potentially provide insights into why Western liberal democracies (U.S., Britain, France) established sanctions in 1989,<sup>23</sup> whereas Moscow's autocratic regime did not. But, it cannot account for the differences in the volumes of French and British arms exports to China since 1989, nor the variations across time in P5 state's arms transfer volumes to the PRC.

### **International Arms Transfers: A Neoclassical Realist Framework**

In light of these shortcomings, we propose an explanatory framework of states' arms export policy that draws on Neoclassical Realism (NCR) to integrate international and domestic-level factors.<sup>24</sup> For NCR, the key independent variable explaining variations in foreign and security policy is states' relative power.

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<sup>19</sup> On the features of a unipolar international system, see Stephen Brooks and William Wohlforth, 'The Rise and Fall of the Great Powers in the Twenty-First Century. China's Rise and the Fate of America's Global Position', *International Security* 40/3 (2016) 7-53; John Ikenberry, Michael Mastanduno, William Wohlforth (eds.), *International Relations Theory and the Consequences of Unipolarity* (Cambridge: Cambridge University Press, 2011); Ethan B. Kapstein, Michael Mastanduno (eds.), *Unipolar Politics* (New York: Columbia University Press, 1999); Nuno P. Monteiro, 'Unrest Assured: Why Unipolarity is Not Peaceful', *International Security* 36/3 (2012) 9-40; Nuno P. Monteiro, *Theory of Unipolar Politics* (Cambridge: Cambridge University Press, 2014); William Wohlforth, 'The Stability of a Unipolar World', *International Security* 24/1 (1999) 5-41.

<sup>20</sup> Andrew Moravcsik, 'Taking Preferences Seriously: A Liberal Theory of International Politics', *International Organization* 51/4 (1997) 519-520. See also Michael Doyle, 'Liberalism and World Politics', *The American Political Science Review* 80/4 (1986) 1151-1169, and Andrew Moravcsik, 'Liberal International Relations Theory: A Scientific Assessment,' in Colin Elman and Miriam Elman (eds.), *Progress in International Relations Theory: Appraising the Field* (Cambridge, Mass.: The MIT Press, 2003).

<sup>21</sup> Martha Finnemore, Kathryn Sikkink, 'International Norm Dynamics and Political Change', *International Organization* 52/4 (1998) 887-917; Ewan Harrison, 'State Socialization, International Norm Dynamics and the Liberal Peace', *International Politics* 41/4 (2004) 521-542; Alexander Wendt, *Social Theory of International Politics* (Cambridge, Cambridge University Press, 1999).

<sup>22</sup> See Erickson, 'Market Imperative Meets Normative Power'; Jennifer Erickson, *Dangerous Trade Arms Exports, Human Rights, and International Reputation* (Columbia: Columbia University Press, 2015); Shannon Lindsey Blanton, 'Foreign Policy in Transition? Human Rights, Democracy, and U.S. Arms Exports', *International Studies Quarterly* 49/4 (2005) 647-668.

<sup>23</sup> On the establishment of Tiananmen sanctions, see Hugo Meijer, 'Balancing Conflicting Security Interests: US Defense Exports to China in the Last Decade of the Cold War,' *Journal of Cold War Studies*, Vol. 17, n° 1, 2015, pp. 4-40.

<sup>24</sup> Steven E. Lobell, Norrin M. Ripsman, Jeffrey W. Taliaferro (eds.), *Neoclassical Realism, the State and Foreign Policy* (Cambridge: Cambridge University Press, 2009); Gideon Rose, 'Neoclassical Realism and Theories of Foreign Policy', *World Politics* 51/1 (1998) 144-172.

Preferences are based upon an assessment of the distribution of capabilities in the international system. Primacy in state behaviour is therefore accorded to international factors, especially the state's relative power. NCR differs from Neorealism in holding that unit-level domestic variables also influence state policies. They act as intervening variables – as an 'imperfect' transmission belt – between international incentives and policy outcomes.<sup>25</sup> In other words, NCR seeks to explain how 'the internal characteristics of states [...] intervene between the leaders' assessment of international threats and opportunities and the actual foreign [policy] leaders pursue'.<sup>26</sup> The material and ideational domestic intervening factors that NCR has taken into account include the type of political regime, the state's autonomy vis-à-vis social actors, civilian-military relationships, bureaucratic and organisational interests, and the influence of interest groups or social groups' collective identities. NCR helps to explain phenomena such as, grand strategy formation,<sup>27</sup> military interventions,<sup>28</sup> under-balancing,<sup>29</sup> and outsourcing to private security contractors.<sup>30</sup> This article further expands NCR's applications to the analysis of international arms transfers.

It shows that variations in states' arms transfer policies can be explained by the interplay of international and domestic variables, namely the state's threat assessment of the existing global and regional balances of power distribution and the level of autonomy of its domestic DTIB. National arms transfer policy is first shaped by a state's threat assessment of the potential recipient of its arms transfers. The higher the threat perception of a potential recipient, the more a state will exhibit restraint in its policy vis-à-vis this potential client to avoid enhancing the latter's material capabilities.<sup>31</sup> As we demonstrate subsequently, national threat assessments are amenable to evaluation through primary sources such as elite interviews, governmental documents and public statements, including national security strategies and defence white papers.

While threat perceptions and relative power considerations are the primary drivers of states' arms transfer policies, these are also shaped, domestically, by the degree of national DTIB autonomy. This refers to the domestic DTIB dependence on (a) *arms exports* to the world market and (b) *arms imports* from foreign suppliers. The arms export dependence of a state is the share of arms exports in the total turnover of its DTIB.<sup>32</sup> It is an indicator of domestic arms industry pressure on the state to permit and promote its arms exports. The higher a state's level of export dependence, the greater the industry's pressure on the state to increase arms exports (and vice versa). Secondly, the higher the degree of arms import dependence of state A's vis-à-vis state B, the greater the leverage of the latter to influence the arms export decision-making of the former.<sup>33</sup> Conversely, if the DTIB and procurement system of state

<sup>25</sup> Norrin Ripsman, 'Neoclassical Realism and Domestic Interest Groups', in *Neoclassical Realism*, 178.

<sup>26</sup> Lobell, Ripsman and Taliaferro, 'Introduction', 4.

<sup>27</sup> Thomas Christensen, *Useful Adversaries: Grand Strategy, Domestic Mobilization, and Sino-American Conflict, 1947-1958* (Princeton: Princeton University Press, 1996); Aaron L. Friedberg, *In the Shadow of the Garrison State: America's Anti-Statism and Its Cold War Grand Strategy* (Princeton: Princeton University Press, 2000).

<sup>28</sup> Colin Dueck, 'Neoclassical Realism and the National Interest: Presidents, Domestic Politics, and Major Military Interventions', in *Neoclassical Realism*.

<sup>29</sup> Randall L. Schweller, *Unanswered Threats: Political Constraints on the Balance of Power* (Princeton: Princeton University Press, 2006).

<sup>30</sup> Eugenio Cusumano, 'Bridging the Gap: Mobilisation Constraints and Contractor Support to US and UK Military Operations', *Journal of Strategic Studies* 39/1 (2015) 94-119.

<sup>31</sup> On Neoclassical realism and threat assessment, see Norrin M. Ripsman, Jeffrey W. Taliaferro, Steven E. Lobell, *Neoclassical Realist Theory of International Politics* (Oxford: Oxford University Press, 2016); Steven E. Lobell, 'Threat Assessment, the State, and Foreign Policy: a Neoclassical Realist Model', in Lobell, Ripsman and Taliaferro (eds), *Neoclassical Realism*, 42-74; Randall L. Schweller, 'Unanswered Threats: A Neoclassical Realist Theory of Underbalancing', *International Security* 29/2 (2004) 159-201.

<sup>32</sup> Total production = (procurement - imports) + arms exports. Export dependence thus is: arms exports/total production\*100.

<sup>33</sup> On the role of asymmetric (inter)dependence as a source of leverage on other states' domestic politics and policies, see Albert Hirschman, *National Power and the Structure of Foreign Trade* (Berkeley: University of California Press, 1945); Harrison Wagner, 'Economic Interdependence, Bargaining Power, and Political Influence', *International Organization* 42/3 (1988) 461-483.

A has no (or little) dependence on supplier B for its arms imports, then the latter has little leverage on state A's arms transfer policy.<sup>34</sup> Given the dominant U.S. position in the international system since the end of the Cold War, we focus on the vulnerability of the other P5 states to pressure from U.S. on their arms transfer policy. The arms import dependence of state A on state B is represented by the percentage share of B in A's arms imports. This latter aspect has not been previously explored by the arms trade scholarship.

Based upon this explanatory framework, the paper shows that the variations in the arms export volumes to China by the other P5 powers are the result of the interplay of international and domestic-level factors. Specifically, we argue that these variations depend, primarily, upon the differences between these states' threat perceptions of a rising China and, secondarily, upon two domestic intervening constraints on the autonomy of their DTIB (dependence on arms exports to the world market and on arms imports from foreign suppliers).

## 2. Explaining P5 States Arms Transfers to China

We evaluate the role of these systemic pressures and domestic constraints in the making of the P5 states' arms transfers to China through four case studies. Each national case study first provides an overview of the state's arms transfer relationship with China since the end of the Cold War, and then examines the explanatory power of our international (threat assessment of China) and domestic variables (export dependence on the world market, and import dependence on the United States).

### The United States

This case study demonstrates that, because of relative power considerations, the dominant power in the post-Cold War international system has maintained a stringent arms embargo to obstruct the military modernisation of China, its most likely near-peer competitor. Furthermore, its large domestic DTIB autonomy – notably its low export dependence – has provided the U.S. with considerable room for manoeuvre to adopt a restrictive arms export policy. As a result, U.S. arms transfers to China have been negligible in the post-Cold War era. Finally, leveraging upon the dependence of French and British DTIB on its military technology, the U.S. has exerted considerable pressures on its two allies when they sought to enhance their arms exports to its strategic rival.

#### *The U.S.' Arms Transfer Relationship with China, 1989-2014*

In the aftermath of the June 1989 crackdown by the People's Liberation Army (PLA) on student demonstrations in Tiananmen Square, both the U.S. and the E.U. imposed embargoes on arms sales to China.<sup>35</sup> While the E.U. embargo is a legally non-binding political statement, Washington has maintained a highly stringent arms embargo, enshrined in U.S. law, throughout the post-Cold War era.<sup>36</sup> The U.S. ban has effectively prevented any significant sale of American military equipment to China since 1989. The U.S. State Department's reports on arms transfers mention the sale of defence articles to China only in FY2000, 2002, 2004 and 2010, for under US\$400,000. The highest value of a military transfer to China was in FY2003, for defences services worth US\$10m, related to toxicological agents.<sup>37</sup> Accordingly, the value of these exports was extremely meagre in comparison to arms sales by the other P5 states (see Figure 1).

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<sup>34</sup> In this case this variable has little influence on the supplier's behaviour.

<sup>35</sup> *The Foreign Relations Authorization Act*, FY1990 and FY1991, H.R. 1487, P.L. 101-246.

<sup>36</sup> For an extended analysis, see Meijer, 'Transatlantic Perspectives on China's Military Modernization', and Meijer, *Trading with the Enemy*.

<sup>37</sup> SIPRI, 'Trade registers'; US State Department, Reports pursuant to Section 655 of the Foreign Assistance Act 1961, FY1999-FY2015, <https://www.pmddtc.state.gov/reports/655>, accessed November 19, 2016.



### *U.S. Threat Assessment of China*

Given the potential challenge that the rise of China poses to its power position in East Asia and on the world stage, the U.S. have vehemently disagreed with their P5 counterparts on the implications of transferring defence equipment to China. Washington has consistently maintained its ban on arms sales to China and systematically opposed the lifting of the E.U. embargo, fearing the latter would increase the flow of European defence equipment to China. According to Stephen Rademaker, former U.S. Assistant Secretary of State for International Security and Non-proliferation:

As we looked into the new century, it seemed like the grand strategic, military challenge to the United States would come from China, and so for all the same reasons during the Cold War we coordinated multilateral export controls to minimise the threat posed by the Soviet Union and its allies, in the 21<sup>st</sup> century it would be important to restrict the transfer to China of equipment and technologies that would enable it to more effectively threaten U.S. national security interests and particularly in the event of a military conflict, which was not inconceivable.<sup>38</sup>

Correspondingly, as Rademaker puts it:

The belief [in Washington] was that some European countries were seeking commercial advantages in their relations with China; and let's be clear, commercial advantages over the United States. In terms of national security, there were different threat perceptions between the U.S. and Europe. No E.U. country is worried about entering into military conflict with China. There is no E.U. country that has security commitments to South Korea, Japan, or Taiwan. For Europe, China is a lucrative and distant market.<sup>39</sup>

As the world's preeminent power, the U.S. has considered that its regional and global strategic interests, including its commitments to its allies and regional security in the Asia-Pacific, are potentially threatened by China's military build-up. A **former senior State Department** official explains U.S. arms transfer policy vis-à-vis China as follow:

The US government took a different view from the [Europeans]. We understood that several E.U. governments were more interested in advancing commercial ties with China that might result from lifting the embargo. [...] The US was not against commercial ties between the E.U. and China but felt that allowing China to have access to military technology was risky. [...] The US has substantial responsibilities as it has five treaty allies in the Asia Pacific (Japan, South Korea, Philippines, Thailand, and Australia) and has significant forces stationed in the Pacific Rim. Therefore, a more advanced Chinese military capability might impact US military far more than any military organization in Europe. [...] And we knew that China was acquiring long-range relay systems so that they could command forces far from their shores, anti-ship missiles, blue water navy and there were many new areas of concern, such as new generations of fighter aircraft. [Washington was] concerned about China's anti-access/area-denial capabilities [that might] at some point prevent freedom of navigation on what has been always been treated as international waters. [Accordingly,] from the US side there was a deep and abiding concern not to raise the level of lethality of the Chinese military in any possible scenario where their forces may be aligned against us. [In contrast,] I do not know that the European military had a particularly strong sense of danger from the Chinese military because they were not exposed [...] unlike the U.S. military [...]. So there was a certain unrealism and lack of national security policy embedded inside the European model which did not vote well for the possibility of a convergence [on the issue of arms sales to China].<sup>40</sup>

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<sup>38</sup> Interviewed by Hugo Meijer, Washington D.C., July 31, 2013.

<sup>39</sup> *Ibid.*

<sup>40</sup> Interviewed by Hugo Meijer, Washington D.C., March 12, 2012.

As another State Department official sardonically puts it, ‘if there is a European threat perception of China, I am not aware of it’.<sup>41</sup> In other words, Washington’s arms transfer policy has been driven primarily by relative power considerations and its threat perception vis-à-vis China, its key post-Cold War strategic rival.

### *U.S. Defence Industrial Autonomy*

#### *(a) Arms Export Dependence on the World Market*

Besides relative power considerations, the virtual absence of U.S. export of any military technology to the PRC is further explained by a crucial intervening variable, the autonomy of the U.S. DTIB. Due to their significant domestic market, U.S. defence firms do not rely on foreign markets for economic survival (Table 2). This means that the U.S. government has not been significantly pressured by defence industry to relax its embargo against China.

**Table 2**

#### *(b) Arms Import Dependence on Foreign Suppliers*

In addition to low export dependence, the U.S. has been further facilitated by its virtual absence of arms import dependence. It has therefore been largely invulnerable to pressures by other great powers to modify its arms transfer policy. Quite the contrary, it is precisely the arms import dependence of France and Britain on its DTIB that has provided Washington with considerable leverage to coerce Paris and London’s arms transfer policies. To dissuade its European allies from lifting the embargo, Washington has exerted significant threats arguing that lifting the E.U. embargo would have adverse repercussions on transatlantic defence industrial cooperation. Leaked diplomatic cables show that American officials have pressured their European counterparts, stressing ‘that if the embargo were lifted, the U.S. Congress would very likely impose restrictions on technology transfer to Europe, making future cooperation on other projects, such as the [F-35] Joint Strike Fighter, very difficult’.<sup>42</sup> These restrictions include the termination of defence article imports from E.U. member states that are procured for integration into American weapons systems.<sup>43</sup> Key U.S. weapons systems produced in cooperation with European suppliers include the Patriot Advanced Capability (PAC-3) missile, the Tactical Tomahawk Missile, and the Predator Unmanned Aerial Vehicles.<sup>44</sup> In the words of a senior State Department official:

Lifting of the E.U. embargo on China would create an enormous chill in transatlantic defence cooperation. There are many very big European and American companies with joint programs: they would be thrown into chaos [...]. There would be huge repercussion on transatlantic defence industrial relations; there are U.S. defence companies with huge interests in Europe and vice versa. [...] And these are big companies with big programs, so there would be a huge impact on jobs and on the commercial side. Europeans would have to balance the benefits of lifting the embargo with the costs for transatlantic relations. The F-35 Joint Strike Fighter, which is one of the so-called “crown-jewels”, would be dead [with any] hint of lifting or relaxing the embargo on China. [...] What has been persuasive [in the U.S. attempts at

<sup>41</sup> Interviewed by Hugo Meijer, Washington D.C., September 11, 2013.

<sup>42</sup> U.S. Embassy in Italy, “Approach to Italian Government On China Arms Embargo: Daylight Between MFA and Prime Ministry Positions,” Cable from the U.S. Embassy in Rome, Confidential, October 13, Wikileaks Cablegate, 2004. On the U.S. government policy aimed at keeping the pressure on European governments in the 2000s and the 2010s respectively, see also U.S. Embassy in Belgium, 2004, “China Arms Embargo: April 2 PSC Debate and Next Steps for U.S.,” Cable from the U.S. Embassy in Brussels, Secret, April 7, Wikileaks Cablegate; and U.S. Secretary of State, 2010, “The E.U. Arms Embargo on China,” Cable to the US Embassies in the E.U., Confidential, February 17, Wikileaks Cablegate.

<sup>43</sup> Kristin Archick, Richard Grimmett, Shirley Kan, *European Union’s Arms Embargo on China: Implications and Options for US Policy* (Congressional Research Service 2006) 35.

<sup>44</sup> *Ibid.*

influencing European arms transfers to China] has been the threat, implicit or explicit, of damaging transatlantic defence industrial cooperation. It has been a big argument.<sup>45</sup>

### *Conclusion*

Washington's arms export policy vis-à-vis China is consistent with our hypothesis that major powers' defence export policies are driven primarily by their threat assessment and relative power considerations vis-à-vis their potential recipients. Washington has aimed at preventing the expansion of China's military capabilities, as the PRC is deemed to be its key strategic competitor. Additionally, its large domestic DTIB autonomy has enabled the U.S. to maintain tight controls on arms exports to China. As the subsequent case studies show, Britain and France's dependence on access to the U.S. arms market has provided U.S. officials with considerable leverage to dissuade them from lifting their arms embargo on the PRC. At the same time, the absence of such leverage in the U.S.-Russian defence industrial relationship has been a significant factor in Moscow's propensity to authorise higher arms export volumes to China.

### **Britain**

British post-Cold War arms transfer policy toward China, with the lowest volumes among P5 states after the U.S., has been driven by the interplay of international and domestic factors. First, because of its lower threat assessment of the PRC, relative power considerations have been a significantly lesser driver in British arms transfer policy than in the U.S. Furthermore, Britain's levels of arms export dependence provided London with incentives to pursue potentially lucrative export contracts with the PRC in order to sustain its DTIB – more than the U.S. However, Britain's import dependence has provided the U.S. with considerable leverage over London to coerce it into restricting British arms transfers to the PRC. As detailed below, the combination of these external and internal factors explain the relatively higher volume of British arms exports to the PRC compared to the U.S. but lower than those of France and Russia.

#### *Britain's Arms Transfer Relationship with China, 1989-2014*

Britain's interpretation of the 1989 E.U. embargo on China was articulated publicly in Parliament in 1995 as applying to the sale to China of 'weapons, and equipment which could be used for internal repression'.<sup>46</sup> This interpretation has provided successive British governments with considerable discretion to authorise defence exports to China on a case-by-case basis.<sup>47</sup> This was reflected in the 1996 decision to endorse the export to China of at least six British-produced Searchwater airborne early warning (AEW) aircraft radar, which were subsequently incorporated into the PLA's Y-8 AEW and maritime patrol aircraft.<sup>48</sup> According to SIPRI data, China was the 14th largest recipient of major conventional arms from Britain during 1989-2015, accounting for 2 per cent of the volume of British arms exports during this period. In addition to the Searchwater AEW radar, SIPRI records deliveries of second-hand and licensed produced Spey turbofan engines for JH-7 combat aircraft produced in China between 1998 and 2015.<sup>49</sup>

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<sup>45</sup> Interviewed by Hugo Meijer, Washington D.C., October 3, 2013.

<sup>46</sup> The embargo includes: "(i) lethal weapons such as machine guns, large calibre weapons, bombs, torpedoes, rockets and missiles; (ii) specially designed components of the above, and ammunition; (iii) military aircraft and helicopters, vessels of war, armoured fighting vehicles and other such weapons platforms; (iv) and, any equipment which is likely to be used for internal repression", *Hansard*, cWA11, 4th April 1995, accessed September 22, 2015, <http://www.publications.parliament.uk/pa/ld199495/ldhansrd/vo950404/text/50404w01.htm>.

<sup>47</sup> SIPRI, Arms Embargoes Database, "E.U. arms embargo on China", accessed March 12, 2016, <http://www.sipri.org/research/armaments/transfers/controlling/research/armaments/transfers/databases/embargoes>.

<sup>48</sup> Bräuner, Bromley and Duchâtel, *Western Arms Exports*, 34.

<sup>49</sup> For a list of all British transfers of major conventional weapons to the PRC since 1989, see SIPRI, "Trade registers", accessed March 12, 2016, <http://www.sipri.org/databases/armstransfers>.

### *Britain's Threat Assessment of China*

Britain's threat perception and relative power considerations about transfers of military equipment that could fuel China's military modernisation have been considerably more limited than in the United States. This is reflected in successive British government policy papers that have presented the relationship with China as offering economic opportunities, rather than representing a strategic threat.<sup>50</sup> For instance, the 2010 and 2015 Strategic Defence and Security Reviews mention China only as crucial economic partner.<sup>51</sup> Similarly, according to a former senior official in the Ministry of Defence (MoD), "the relationship with China is mostly driven by commercial interests [and] the impact of the rise of China on the United Kingdom is mostly economic. [...] China does not impinge on the planning of the capabilities [of British armed forces]."<sup>52</sup> British governments have pursued a "multidirectional effort to increase trade, investment, and diplomatic relations" in East Asia in general, and vis-à-vis China in particular.<sup>53</sup> In the words of one official, in contrast to U.S. policies vis-à-vis China, British policy has therefore relied "more on diplomacy than aircraft carrier groups."<sup>54</sup> Given the so-called "tyranny of distance" and the retrocession of Hong Kong to the PRC in 1997, Britain retains a modest military presence in the Asia-Pacific region that focuses in particular on Brunei and Singapore.<sup>55</sup> Consequently, Britain's threat perception stands in stark contrast to the assessment by U.S. policymakers that have tended to present China as a strategic rival. While this low threat assessment contributes to explaining why Britain has the second highest export volumes to the PRC within the E.U. (after France), domestic intervening variables have also shaped British arms transfer policy resulting in significantly lower export volumes to the PRC than France and Russia.

### *British Defence Industrial Autonomy*

#### *(a) Arms Export Dependence on the World Market*

Since the 1960s, Britain's approach towards arms exports has been shaped by its relatively high export dependence. The last year for which Britain produced an official estimate of actual arms exports is 2007 (See Table 3). However, the Ministry of Defence's (MOD) 2016 *Finance & Economics Annual Bulletin* indicates that Britain's major arms producing companies continue to rely on arms export sales, with MoD procurement accounting for 68 per cent of QinetiQ's annual revenue for 2015/2016, 37 per cent for Babcock, and less than 25 per cent of BAE Systems and Serco. Of these companies, only QinetiQ and Babcock had years between 2005/06 and 2015/16 in which the UK MoD accounted for more than half of their annual revenues.<sup>56</sup>

Given the British DTIB's high export dependence, it is understandable that since 1989, Britain has used its "room for interpretation" of the non-legally binding E.U. embargo to implement looser national export restraints than Washington's comprehensive and legally binding embargo.<sup>57</sup> The UK has consequently been the second largest European supplier of military equipment to China. Furthermore,

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<sup>50</sup> United Kingdom Foreign and Commonwealth Office, *The UK and China: A Framework for Engagement*, 2009; United Kingdom Intelligence and Security Committee, *Annual Report 2009-2010*, Cm. 7844, 2010; United Kingdom Cabinet Office, *The National Security Strategy of the United Kingdom: Update 2009. Security for the Next Generation*, Cm. 7590, 2009.

<sup>51</sup> United Kingdom Government, 'Securing Britain in an Age of Uncertainty: The Strategic Defence and Security Review' (October 2010), 51, 61, 67; and 'National Security Strategy and Strategic Defence and Security Review 2015: A Secure and Prosperous United Kingdom' (November 2015) 10, 14, 58, 71.

<sup>52</sup> Interviewed by Hugo Meijer, London, 24 November, 2016.

<sup>53</sup> Leo Michel, James Przystup, 'The U.S. 'Rebalance' and Europe: Convergent Strategies Open Doors to Improved Cooperation', *Strategic Perspectives* 16 (2012), International Institute for National Strategic Studies, 10.

<sup>54</sup> Quoted in Michel, Przystup, 'The U.S. 'Rebalance' and Europe', 10.

<sup>55</sup> See Michael Yahuda, 'China and Europe: The Significance of a Secondary Relationship', in Thomas W. Robinson, David Shambaugh (eds.), *Chinese Foreign Policy: Theory and Practice* (NY: Oxford University Press 1995); Michel, Przystup, 'The U.S. 'Rebalance' and Europe', 10; and Doug Stokes, Richard D. Whitman, 'Transatlantic triage? European and UK "grand strategy" after the US rebalance to Asia', *International Affairs* 89/5 (2013) 1087-1107.

<sup>56</sup> UK Ministry of Defence, *Finance & Economics Annual Bulletin Trade, Industry & Contracts Statistics 2016* (August 25, 2015), 8, accessed November 19, 2016, <https://www.gov.uk/government/statistics/mod-trade-industry-and-contracts-2016>.

<sup>57</sup> Bart van Hezelwijk, 'Licensed Exports to China', 3.

the Blair government was initially in support of lifting the E.U. embargo in the early 2000s.<sup>58</sup> The assessment of a senior U.S. official involved in negotiations with Britain at that time is that, at that stage, ‘the British government was confident that it could achieve several goals at once: achieve some bilateral [export] goals with China, enhance its standing within the E.U. [and] gain credit for selling the E.U. Code of Conduct on Arms Exports (CoC) to Washington’ thereby enhancing the prospects of lifting the embargo and enhancing arms transfers to China.<sup>59</sup> This is consistent with our hypothesis on the role of domestic economic drivers in states with a high export dependent DTIB. However, the British government quickly withdrew its support to lifting the arms embargo and the volume of U.K. arms exports to China remained relatively low ever since. This can be understood only by looking at our second intervening variable, which is Britain’s high level of arms import dependence on the U.S.

**Table 3**

*(b) Arms Import Dependence on Foreign Suppliers*

Indeed, in 2005, Britain subsequently reversed its position in response to threats by Washington that the lifting of the E.U. embargo would result in U.S. suspension of cooperation with E.U. member states participating in major joint defence projects as well as its termination of further E.U. defence imports.<sup>60</sup> Given its high degree of arms import dependence from Washington (Table 4), in contrast to Russia and France, Britain was confronted with a stark choice between securing privileged bilateral cooperation with the U.S. DTIB via the U.S.-UK defence cooperation treaty which was being negotiated,<sup>61</sup> or pressing for measures that might have enhanced future arms exports to China.

The British government calculated that the economic and strategic value of privileged access by the British DTIB to U.S. Department of Defence (DoD) contracts and other forms of bilateral technology transfer outweighed any potential gains from future defence trade with China. In the words of a senior State Department official involved in these negotiations, in the end ‘the defence trade relations with Washington was way more important [for the UK] of anything going on with China [and the issue of the arms embargo]’.<sup>62</sup> This assessment is supported by the fact that between 1989 and 2015, SIPRI estimates that the U.S. accounted for 79 per cent of the volume of British arms imports and 18 per cent of British arms exports. Indeed, the U.S. is the largest arms supplier to Britain by some distance, and its second largest export market after Saudi Arabia.<sup>63</sup> Therefore, the Britain’s dependence on U.S. weapon systems and access to the U.S. defence market provided the U.S. with significant leverage on Britain to the point that London ultimately abandoned its policy of seeking to enhance arms exports to China.

**Table 4**

*Conclusion*

On the face of it, it might be expected that Britain – a P5 state with both a lower threat assessment than the U.S. and relatively high arms export dependence – would have competed vigorously to export arms to China. However, Britain’s comparatively low volumes of arms exports to China, when

<sup>58</sup> Meijer, *Transatlantic Perspectives on China’s Military Modernization*, 19.

<sup>59</sup> Interviewed by Hugo Meijer, Washington D.C., March 26, 2012. The CoC was adopted in 1998 by E.U. member states and contains 8 criteria, including respect for human rights, that states must take into account in their export control licensing processes. The negotiations on the European embargo on China entailed strengthening the existing CoC as a precondition for lifting the arms ban on sales to China. See Meijer, “Transatlantic Perspectives”; and European External Action Service, “Arms export control”, accessed March 13, 2016, [http://www.eeas.europa.eu/non-proliferation-and-disarmament/arms-export-control/index\\_en.htm](http://www.eeas.europa.eu/non-proliferation-and-disarmament/arms-export-control/index_en.htm).

<sup>60</sup> Claire Taylor, *UK-US Defence Trade Co-operation Treaty*, House of Commons Library, International Affairs and Defence Section (February 17, 2009) cited in Meijer, “Transatlantic Perspectives”, 33.

<sup>61</sup> See John Dumbrell, “The US–UK Special Relationship: Taking the 21st-Century Temperature”, *The British Journal of Politics & International Relations* 11/1 (2009) 64–78.

<sup>62</sup> Interviewed by Hugo Meijer, Washington D.C., July 31, 2013.

<sup>63</sup> SIPRI, ‘Importer/Exporter TIV tables’.

compared to France and Russia, can be explained by its high arms import dependence on the U.S. DTIB. The leverage over the British defence procurement provided Washington with comparatively greater leverage to influence London's arms transfer policy than it had over France and Russia. This explains why, despite its higher arms export dependence than France, the volume of British arms exports to China was lower than for France and Russia.

## France

Analysis of French arms exports to China lend further support to the hypotheses arising from our framework. France has had a lower threat assessment and lesser relative power considerations than Washington regarding China's military build-up. Furthermore, the French DTIB's export dependence on foreign markets prompted the French government to seek to expand its arms exports to the PRC. However, like Britain, France's dependence on U.S. arms imports exposed it to retaliatory threats that eventually led France to end its push to lift the EU embargo. At the same time, France's lower arms import dependence on the U.S. than Britain has meant that it has been less vulnerable than London to pressure from Washington, which explains why France has sold a higher volume of defence goods to China than Britain.

### *France's Arms Transfer Relationship with China, 1989-2014*

France has chosen to adopt a relatively loose interpretation of the EU arms embargo against China which has allowed Paris to be the largest E.U. arms exporter to China in the post-Cold War era. SIPRI data identified China as the second largest recipient of French weapons between 2011 and 2015.<sup>64</sup> This is in large part because SIPRI includes in its data Chinese-produced domestic variants of French helicopters that were transferred prior to the E.U. embargo.<sup>65</sup> Despite the fact that 'some of China's best attack and transport helicopters rely on designs from Eurocopter',<sup>66</sup> and that there is ongoing Sino-French cooperation in this field – exemplified by the launch of joint production of the EC-175/Z-15 helicopter<sup>67</sup> – French government statistics do not include this form of transfer. The French government data indicate that during 2005-2014, China was its 18<sup>th</sup> biggest customer in terms of orders.<sup>68</sup> Nonetheless, French government statistics do indicate that France has been the largest E.U. arms supplier to China. In 2013, France accounted for 60 per cent of the total value of EU member states' arms export licenses to China, and over 80 per cent in 2011 and 2012.<sup>69</sup> Between 2010 and 2014, some 40 per cent of licenses authorised were for aircraft or aircraft equipment (ML10); 40 per cent for imaging or countermeasure equipment (ML15); and 11 per cent for electronic equipment (ML11).<sup>70</sup> This attests that France has used its 'room for interpretation' of the EU embargo to implement looser national export restraints than Britain, while still exporting much less significant weapon systems than Russia to the PRC.

### *France's Threat Assessment of China*

Like Britain, France has a lower threat assessment of China than the U.S. The French last defence white papers of 2008 and 2013 do present China as an emerging military power and see potential

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<sup>64</sup> Aude Fleurant, Sam Perlo-Freeman, Pieter D. Wezeman and Siemon T. Wezeman, 'Trends in international arms transfers, 2015' (Stockholm: SIPRI Fact Sheet, February 2016) 2.

<sup>65</sup> The SIPRI Arms Transfers Database covers all international sales and gifts of weapons, including manufacturing licenses, SIPRI, "SIPRI Arms Transfers Database – Methodology," accessed March 12, 2016, [http://www.sipri.org/databases/yy\\_armstransfers/background](http://www.sipri.org/databases/yy_armstransfers/background).

<sup>66</sup> David Lague, 'Chinese military's secret to success: European engineering', *Reuters*, December 19, 2013, accessed March 12, 2016, <http://in.reuters.com/article/2013/12/19/us-breakout-submarines-special-report-idINBRE9BI0PD20131219>. Today, Eurocopter has become Airbus Helicopters.

<sup>67</sup> Guillaume Belan, 'AVIC, Airbus to produce 1,000 AC352s', *Jane's Defense Weekly*, April 2, 2014.

<sup>68</sup> French Government, Ministry of Defence, 'Rapport au Parlement 2015 sur les exportations de la France', (June 2015) 88.

<sup>69</sup> European Union, 16th, 15th, and 14th annual reports on arms exports, accessed March 12, 2016, [http://www.eas.europa.eu/non-proliferation-and-disarmament/arms-export-control/index\\_en.htm](http://www.eas.europa.eu/non-proliferation-and-disarmament/arms-export-control/index_en.htm).

<sup>70</sup> French Government, Ministry of Defence, 'Rapport au Parlement sur les exportations de la France', (August 2011 to June 2015), accessed March 13, 2016.



conflicts in the Asia-Pacific involving China, but do not consider China as a potential threat to its regional or global interests.<sup>71</sup> Confirming this evaluation, officials in the French Ministry of Foreign Affairs (MFA) point out that:

There are no strategic tensions between China and France as there are between the U.S. and China; China is not a threat to our vital interests – as it is for the United States. A conflict in East or Southeast Asia would not affect our vital interests; we do not have sufficiently important interests in the region for our vital interest to be directly affected in case of conflict; but there would be an important economic impact.<sup>72</sup>

Another MFA official stresses that while ‘France does have economic interests in East, [it] does not have vital political/military interests in the region’.<sup>73</sup>

#### *French Defence Industrial Autonomy*

France’s low threat assessment of China contributes to explain its relatively high exports volumes to the PRC. However, domestic intervening variables further explain why French arms exports to China are at the same time higher than the UK but lower than Russia’s, and why the French government eventually ceased to push for the lifting of the embargo against China from the late 2000s onwards.

#### *(a) Arms Export Dependence on the World Market*

France’s low threat perception of China, and its consequent permissive approach to arms transfers, is further reinforced by the French DTIB’s high export dependence on foreign markets (Table 5). This economic dependence further explains why it has been the country most actively pushing, in the E.U., for increased arms exports to China since 1989. Starting in the early 2000s, the economic potential of the Chinese market led the French government to take the lead in proposing to lift the E.U. arms embargo. Although French decision-makers never publicly referred to commercial interests, economic factors have been central.<sup>74</sup> Major defence companies such as Thales and EADS (today Airbus)<sup>75</sup> stood to gain considerably from unfettered access to the Chinese defence market.<sup>76</sup> For instance, between 2004 and 2006, when France championed the lifting of the E.U. China embargo, Thales derived 71 per cent of its total revenue from exports and Airbus between 70 and 79 per cent.<sup>77</sup> In other words, the combination of low threat perception and high export dependence explain France’s drive to increase arms exports to the PRC.

**Table 5**

#### *(b) Arms Import Dependence on Foreign Suppliers*

However, the French DTIB’s dependence on arms imports from the U.S. (though lower than the British) also came into play, acting as a restraint on French arms transfer policy to China. From the mid-2000s onwards the French-led initiative to relax the EU arms embargo on China lost momentum

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<sup>71</sup> French Government, ‘Défense et sécurité nationale. Le livre blanc’ (Paris: Odile Jacob/La documentation française 2008), 34-35, 357; and French government, ‘Livre Blanc. Défense et sécurité nationale 2013’, (Paris: Direction de l’information légale et administrative 2013), 34-45, 58.

<sup>72</sup> Interviewed by Hugo Meijer, Paris, November 14, 2013.

<sup>73</sup> Interviewed by Hugo Meijer, Paris, November 14, 2013.

<sup>74</sup> May-Britt Stumbaum, *The European Union and China: Decision-making in E.U. foreign and security policy towards the People’s Republic of China* (Baden-Baden: Nomos, 2009).

<sup>75</sup> Airbus is a trans-European group. However, Airbus’s defence sector that was particularly involved in China was that of helicopters. The majority of Airbus’ defence helicopter manufacturing site are located in France (10 out of 31), so Airbus could use the jobs argument vis-à-vis the French government. Airbus Helicopters, Global Presence, accessed November 19, 2016, [http://www.airbushelicopters.com/website/en/ref/Global-Presence\\_93.html](http://www.airbushelicopters.com/website/en/ref/Global-Presence_93.html).

<sup>76</sup> Eugene Kogan, *The European Union Defense Industry and the Appeal of the Chinese Market*, Studien und Berichte zur Sicherheitspolitik, No. 1 (Vienna: Schriftenreihe der Landesverteidigungsakademie, 2005), 28.

<sup>77</sup> Thales Group, *Annual Reports* 2004, 2005, 2006. Figures provided include both civilian and defence exports; Airbus Group (EADS), *Annual Reports* 2004, 2005 2006. Figures provided include both civilian and defence exports.

as a consequence, in part, of Chinese behaviour (with the passage of the 2005 anti-secession law), but, more importantly, French decision-makers increasingly took U.S. threats into account.<sup>78</sup> Indeed, French officials acknowledged that transatlantic disagreements on the arms embargo ‘allowed [the French government] to better understand U.S. concerns; France had not yet realised the potential of strategic disequilibria that could unfold in East Asia’.<sup>79</sup> When France pushed for lifting the E.U. embargo, Washington presented the French government with a choice between continued defence cooperation with the U.S. versus expanded access to the Chinese market. The threat of jeopardizing U.S.-French defence cooperation dissuaded the French government and industry from lifting the embargo. According to a defence industry representative:

We all knew that there would be a risk of American retaliation if the embargo on arms sales to China was lifted. [...] It will be impossible to reopen the debate on the lifting of the embargo before the Americans change their mind on this issue.<sup>80</sup>

In the words of another industry representative:

We prefer to be ‘on the American side’ and work with them – because it is there where we have real money to make – rather than making a few sales to the Chinese but thereby antagonizing our [U.S.] partners. [...] We are not going to cut our arm [i.e. defence cooperation with the U.S.] for the Chinese market.<sup>81</sup>

Consequently, while France’s low threat assessment and high export dependence have acted as drivers for a more permissive arms transfer policy towards China than Britain, French arms exports to China have been restrained by France’s arms import dependence on the U.S (Table 6) – which explains its renouncement to lift the E.U. arms embargo.

**Table 6**

### *Conclusion*

The evolution of French arms transfer policy toward China provides further support to our hypotheses. Because of its low threat assessment of the impact of China’s rise, as well as because of relative high export dependence on foreign markets, France has been the country most active in Europe in pushing to expand arms exports to China. This situation is similar to the British case, but French arms transfer volumes to the PRC have been higher. This difference is explained by the lower arms import dependence of the French DTIB than the British DTIB on U.S. arms market which has provided Washington with less leverage to influence Paris than London’s arms transfer policy – although still sufficiently for the French to abandon their goal of lifting the E.U. arms embargo against China.

### **Russia**

This final case study confirms the international and domestic factors that, according to our framework, explain the levels of Russian arms transfer volumes to China – the highest among the P5 major powers since the end of the Cold War. First, Russia’s threat perception of China is more complex than that of the other P5 states. Formally, Russia and China have been ‘strategic partners’ since 1996 and during the twenty-first century share a wide range of mutual interests. At the same time, as detailed below, the partnership is undercut by continuing mistrust and suspicion among some elements in the Russian

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<sup>78</sup> Meijer, ‘Transatlantic Perspectives on China’s Military Modernization’, 34.

<sup>79</sup> French Ministry of Defence official, interviewed by Hugo Meijer, Paris, September 10, 2013.

<sup>80</sup> Interviewed by Hugo Meijer, Paris, July 24, 2013.

<sup>81</sup> Interviewed by Hugo Meijer, Paris, July 24, 2013.



military and security elite.<sup>82</sup> Secondly, Russia's average domestic DTIB has had by far the highest level of export dependency of all the P5 states in the post-Cold War era, a domestic factor that generated strong pressures from the arms industry and led Moscow to forcefully seek the expansion of its arms exports. Finally, Russia's independence from U.S. arms exports has made it largely invulnerable to pressures from Washington, unlike France and Britain. These three factors jointly explain why Russia has exhibited the highest arms export volumes among the P5 states toward China in the post-Cold War era. However, the volume of Russian arms exports to China declined from the mid-2000s, in relation to Russian concerns about China's growing relative power and its copying of Russian arms. At the same time, partly because of the rise in its procurement budget, Russia's arms export dependence on foreign market started to decrease when compared to levels in the 1990s. The combination of these factors explains the evolution of Russian arms transfers to China over time.

#### *Russia's Arms Transfer Relationship with China, 1989-2014*

Between 1992 and 2015, SIPRI estimates that China accounted for 27 per cent of Russian arms exports and was its second largest recipient (Figure 1 and Table 1). Russia accounted for 80 per cent of Chinese arms imports during this period.<sup>83</sup> Since 1991, Russia has transferred a significant quantity of conventional weapons as well as related parts, components and technology, to China. It has been by far the largest supplier of military equipment to China throughout the post-Cold War period. Russia's exports to China have included: Su-27/Su-30 combat aircraft, transport aircraft, Mi-17 military transport helicopters, Tor-M1 mobile air defence systems, S-300PMU1/2 air defence systems, Type 636E and Type 877E submarines, Sovremenny destroyers and a wide range of missiles.<sup>84</sup> However, while Russia continued to export significantly higher volumes of military equipment to the PRC than the other P5 states, its arms transfers to China experienced a notable decline after the mid-2000s (Figure 1 and Table 1). Our framework elucidates these variations in the volumes of Moscow's arms transfers to Beijing.

#### *Russia's Threat Assessment of China*

Russia and China concluded a 'strategic cooperative partnership' in 1996 and a Treaty of Good-Neighbourliness and Friendly Cooperation in 2001,<sup>85</sup> marking a period in which official political rhetoric indicated that relations between Russia and China were 'at their best in history'.<sup>86</sup> The Russian Foreign Policy Concept of 2013 indicates that Russia seeks to:

Further build up comprehensive, equal and trustful partnership and strategic collaboration with China and actively develop cooperation in all the spheres. Russia regards the fact that the two countries share the same fundamental positions on key global issues as one of the core elements of regional and global stability. Thereupon Russia will promote foreign policy cooperation with China in various areas.<sup>87</sup>

<sup>82</sup> Linda Jakobson, *et al*, *China's Energy and Security Relations with Russia: Hopes, Frustrations and Challenges* (Stockholm: SIPRI Policy Paper No. 29, October 2011).

<sup>83</sup> SIPRI, 'Arms Transfers Database'. The period 1992-2015 is utilised to correspond with Russian as opposed to Soviet arms exports.

<sup>84</sup> For a list of transfers of major conventional weapons from Russia to China, see: SIPRI, 'Arms Transfers Database'.

<sup>85</sup> 'Joint Declaration by the People's Republic of China and the Russian Federation: Adopted at Beijing on 25 April 1996', 2 May 1996, United Nations General Assembly, A/51/127, <<http://www.un.org/documents/ga/docs/51/plenary/a51-127.htm>>; and Chinese Ministry of Foreign Affairs, 'Treaty of Good-Neighbourliness and Friendly Cooperation Between the People's Republic of China and the Russian Federation', 24 July 2001, <<http://www.fmprc.gov.cn/eng/wjdt/2649/t15771.htm>>.

<sup>86</sup> 'China-Russia relations at their best: ambassador', *Xinhua*, 26 September 2010, <[http://news.xinhuanet.com/english2010/china/2010-09/26/c\\_13530762.htm](http://news.xinhuanet.com/english2010/china/2010-09/26/c_13530762.htm)>.

<sup>87</sup> Articles 79-80 of the Russian Foreign Policy Concept of 2013 outline Russia's official aims for the relationship with China. Russian Ministry of Foreign Affairs, 'Concept of the Foreign Policy of the Russian Federation', Approved by President of the Russian Federation V. Putin on February 12, 2013, February 18, 2013, [http://www.mid.ru/en/foreign\\_policy/official\\_documents/-/asset\\_publisher/CptICk6BZ29/content/id/122186](http://www.mid.ru/en/foreign_policy/official_documents/-/asset_publisher/CptICk6BZ29/content/id/122186).

At the same time, it has been suggested that political trust is weak and there is a latent threat perception amongst elements in the Russian military and amongst both hawkish and liberal analysts, which view China's rise suspiciously.<sup>88</sup> Such views have been marginalized during the Putin era and are not reflected in official Russian discourse.<sup>89</sup> Yet, even amongst Russian analysts that promote the Sino-Russian strategic partnership there are calls for caution and the need to 'create a balance to China's growing influence in Eastern Asia'.<sup>90</sup> The most public display of a lack of trust has manifested itself in the arms transfer relationship with regards to Russian concerns that China is copying imported Russian arms and that this could result in China competing with, and successfully undercutting, Russian exports.<sup>91</sup> For example, in 1996, Russia granted China a license to produce 200 J-11 combat aircraft from Russian Su-27SK kits. In 2004, China announced that it would only produce 100 J-11 from Su-27SK kits because it was now able to produce most of the components for the aircraft itself. In 2007 China unveiled the J-11B combat aircraft, which consisted of 90 per cent Chinese-produced components but bore a striking resemblance to the Su-27SK.<sup>92</sup> In April 2008, Russia officially declared that the J-11B was a copy of a Russian Su-27SK and therefore a violation of international agreements, and threatened legal proceedings for violation of intellectual property'.<sup>93</sup> Agreements on intellectual property were reportedly signed in 2008 and 2012,<sup>94</sup> but the Su-27SK case has influenced the Russian position regarding subsequent Chinese requests for advanced systems. In November 2014, Rosoboronexport's Anatolii Isaikin confirmed that a critical factor in Russia's refusals to comply with China's request to purchase a small number of Su-33 carrier-borne aircraft related to concerns that China would produce unlicensed copies.<sup>95</sup> Russia's concerns that China's reverse engineering practices might enhance its relative capabilities contribute to explaining – coupled with the domestic intervening factors discussed below – why Moscow adopted a more restrictive arms transfer policy after the mid-2000s, reflected in reduced exports to China.

### *Russian Defence Industrial Autonomy*

#### *(a) Arms Export Dependence on the World Market*

Russia inherited the bulk of the Soviet arms industry, but it did not enjoy the scale of domestic or external demand to enable it to utilise arms exports in the same manner as the Soviet Union. As Sánchez-Andrés has noted, Russian arms exports became essential for the very survival of the Russian arms industry.<sup>96</sup> Unsurprisingly, Russia retains the highest level of export dependence of the four case studies (Table 7) between 1989 and 2015. However, it is worth noting that it began to implement a significant domestic arms procurement program,<sup>97</sup> which, through procurement budget increases, contributed to reduce (relatively) the DTIB's dependence on foreign markets most notably from the mid-2000s onwards (see Table 6, and Appendix for procurement budget data).<sup>98</sup> This trend, combined

<sup>88</sup> Jakobson et al, 2011, pp. 11-12.

<sup>89</sup> Bobo Lo, *Russia and the New World Disorder* (London: Chatham House and Washington D.C.: Brookings Institution Press 2015) 132-64; Rangsimaporn Paradorn, 'Russia's debate on Military-Technological Cooperation with China: From Yeltsin to Putin', *Asian Survey* 46 (May/June 2006) 487-8.

<sup>90</sup> Aleksandr Lukin, 'Russian-Chinese Relations: Keeping up the Pace', *International Affairs* (Moscow) 56/1 (January 2011) 25-8.

<sup>91</sup> 'Наглый Восток' [The impudent East], *Gazeta.ru*, July 8, 2010,

[http://www.gazeta.ru/politics/2010/07/08\\_a\\_3396043.shtml](http://www.gazeta.ru/politics/2010/07/08_a_3396043.shtml).

<sup>92</sup> This case is discussed in Cheung, 'Innovation in China's Defense Technology Base', 749.

<sup>93</sup> 'Russia cancels sale of Su-33 fighters to China to prevent their pirate copies', *Pravda*, March 10, 2009.

<sup>94</sup> Aleksandr Gabuev, '[Russian arms took up defensive positions in China]', *Kommersant*, December 12, 2008; Zachray Keck, 'Putin approves sale of S-400 to China', *The Diplomat*, April 11, 2014.

<sup>95</sup> Sergei Ptichkin and Igor Chernyak, '[China came close to buying Su-33]', *Rossiiskaya gazeta*, November 13, 2014.

<sup>96</sup> Antonio Sánchez-Andrés, 'Arms exports and restructuring in the Russian defence industry', *Europe-Asia Studies*, 56/5 (2004) 687-706.

<sup>97</sup> Julian Cooper, *Russian Military Expenditure: Data, Analysis and Issues* (Stockholm, Sweden: FOI Report FOI-R—3688-SE, September 2013).

<sup>98</sup> Perlo-Freeman, Sam, Wezeman, Pieter D., 'The SIPRI Top 100 arms-producing and military services companies, 2012', *SIPRI Yearbook 2014: Armaments, Disarmament and International Security* (Oxford: Oxford University Press 2014) 206-7.

with the increase in Russian arms exports to Algeria, India, Venezuela, and Viet Nam,<sup>99</sup> further helps to explain the changing volume of Russian arms exports China since mid-2000 onwards (Figure 1). Indeed, the Russian DTIB's reduced export dependence meant that domestic pressures on the Russian government to export to China diminished.

However, negotiations for Sino-Russian conventional arms deals resumed after 2014. After a period of a decline in arms export dependence since 2005 (Table 7), this resurgence in Moscow's interest in the Chinese market can be explained by the renewed increase of the Russian DTIB's dependence on foreign markets. Indeed, the Russian arms industry had sought in recent years to access European suppliers of technology and know-how, which were intended to support the modernization of Russia's DTIB.<sup>100</sup> After the Crimean annexation, the Russian arms industry, and specifically 14 defence companies, were targeted by U.S and E.U sanctions,<sup>101</sup> which created an economic pressure that meant that Russia's DTIB became more dependent on the Chinese market.<sup>102</sup> It also impacted its defence budgets,<sup>103</sup> hence further reinforcing the dependence of the Russian industry on exports to generate revenue. Shortly after Russian access to foreign suppliers was restricted, Russia announced a \$3 billion deal with China for the S-400 air defence system,<sup>104</sup> and a \$2 billion contract to supply 24 Su-35 combat aircraft to China.<sup>105</sup>

**Table 7**

*(b) Arms Import Dependence on Foreign Suppliers*

Furthermore, unlike Britain and France, Russia is not dependent on arms imports from the U.S. (Table 8). Therefore, Moscow has been less vulnerable than Paris and London to the retaliatory threats exerted by Washington to coerce them into restricting arms transfers to the PRC.

**Table 8**

*Conclusion*

This section provides further evidence in support of our hypotheses on major powers' arms exports to China. First, Russia regards China increasingly as a partner rather than a security threat. Given this low threat assessment, Russia has not exercised the same degree of restraint as other P5 states in terms of the volume of arms exports to China. Russia's considerably high level of arms export dependence on foreign markets (the highest among P5 states), combined with the limited opportunities for the U.S. to exercise pressures on Russia's arms transfers, are the two domestic intervening factors that further explain Russia's arms exports to China. The reduction in Russian arms export volumes to China since the mid-2000s is explained by the diversification of Russian arms exports, decreasing arms export dependence on foreign markets, and the fear of China's growing relative capabilities and, in particular, its copying of Russian arms – i.e. a rising threat assessment.

<sup>99</sup> SIPRI, 'Importer/Exporter TIV tables', accessed November 11, 2016. See also: Bettina Renz, Rod Thornton, 'Russian Military Modernization: Cause, Course, and Consequences', *Problems of Post-Communism* 59/1 (2012) 46; Keir Giles, 'A New Phase in Russian Military Transformation', *The Journal of Slavic Military Studies* 27/1 (2014).

<sup>100</sup> 'France suspends Mistral warship delivery to Russia', *France 24*, 4 September 2014, <<http://www.france24.com/en/20140903-france-suspends-plans-first-mistral-helicopter-carrier-russia>>.

<sup>101</sup> European Union, Council Decision 2014/512/CFSP of 31 July 2014 concerning restrictive measures in view of Russia's actions destabilising the situation in Ukraine, *Official Journal of the European Union*, L229, 31 July 2014, 13-17; U.S. Department of State, 'Ukraine and Russia Sanctions', available at <http://www.state.gov/e/eb/tfs/spi/ukrainerussia/>.

<sup>102</sup> Kashin, Vassily, 'Industrial cooperation: path to confluence of Russian and Chinese economies', *Russia in Global Affairs*, 18 April 2016.

<sup>103</sup> Russia's draft budget bill for 2017 projected a 27% reduction in the defence budget, Kathrin Hill, 'Russia prepares for deep budget cuts that may even hit defence', *Financial Times*, October 30, 2016.

## Conclusion

The considerable enhancement of China's military and technological capabilities and its increasingly assertive behaviour vis-à-vis its neighbours has sparked considerable unease regarding the future of regional and global stability. 'Who is Arming China?' is therefore a crucial question to address in the context of the shifting great power relationships of the 21<sup>st</sup> century. In tackling this question, the article makes two original contributions. First, based on elite interviews, diplomatic cables, and government documents, it offers the first comprehensive cross-national comparison of U.S., British, French, and Russian arms transfer policies toward China since the end of the Cold War. Second, it proposes an explanatory framework for analysing international arms transfers by drawing on Neoclassical Realism. On this basis, it develops hypotheses on the interplay of international and domestic factors in shaping states' arms export policy. We contend that national arms transfer policies vis-à-vis China, and specifically variations in export volumes, depend, primarily, on the state's threat assessment of the existing balances of power but also on domestic intervening factors. Our key original theoretical contribution is in the identification of these domestic intervening factors, namely two constraints on the autonomy of the state's DTIB (export dependence to the world market and imports dependence on foreign suppliers). This article's findings complement the existing literature on the "demand side" drivers of China's military build-up and reliance on foreign technology. By focusing on the "supply side" through a comparison of P5 arms transfers to the PRC, it contributes to providing a more comprehensive understanding of the dynamics shaping China's military modernization.

The explanatory framework and our empirical findings open at least three fruitful avenues for future research. First, they lay the foundation for testing these hypotheses to other powers. Examining P5 policies toward other rising powers could open the way to a research agenda on major power relations with other BRICS countries (Brazil, Russia, India or South Africa) and their interactions in the field of arms transfers. Similarly, our framework allows for the analysis of how relative power and domestic DTIB constraints influence smaller states such as Israel, Switzerland, or Ukraine.

Second, our findings open new questions on the consequences of DTIB internationalisation on arms transfer policies. The internationalisation of DTIBs might well constrain states' capacity to retain a freedom of manoeuvre in shaping their arms procurement and transfer policies, according to their degree of DTIB autonomy.<sup>106</sup> The internationalisation of supply chains for the manufacturing of defence products reduces the autonomy of major arms producers' DTIB and could expose them to greater leverages from external powers who produce crucial subcomponents for major weapon platforms. Notably, it could lower the gap between the hegemon at the top of the hierarchy of international arms producers, which would itself become more dependent on second or third-tier arms suppliers.<sup>107</sup>

Finally, our approach potentially allows bridging between the theories of unipolar politics<sup>108</sup> and NCR in the field of international arms exports but also well beyond. While theories of unipolarity focus on the features of a structurally unipolar system, NCR examines how domestic factors affect the foreign and security policy of states. Including the intervening role of domestic constraints in the debates on unipolarity could enrich our understanding of unipolar politics. First, doing so raises questions on how domestic intervening variables can affect the U.S. capacity to influence lesser powers to adopt policies it prefers. Furthermore, it can shed light on the domestic room for manoeuvre of lesser power in resisting policy choices pushed for by the unipole. In sum, it can provide insights into how both

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<sup>106</sup> Todd Sandler, Keith Hartley, *Handbook of Defense Economics, 2: Defense in a Globalized World* (Amsterdam/Oxford: North Holland/Elsevier, 2007); Mark R. Devore, 'Arms Production in the Global Village: Options for Adapting to Defense-Industrial Globalization', *Security Studies* 22/3 (2013) 532-572.

<sup>107</sup> Richard A. Bitzinger, *Towards a Brave New Arms Industry?* (New York: Routledge, Adelphi Paper 356, 2003) 74-75.

<sup>108</sup> See footnote 19.

relative power considerations and domestic intervening factors enable or constrain states' foreign and security policy choices – as in our arms transfer case study – vis-à-vis the unipole. Who is arming China is, in other words, not only an empirically rich area to be investigated, but also paves the way for new ways of thinking the international and domestic-level factors shaping states' response to rising powers in contemporary international politics.

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## Methodological Appendix

### 1. Calculating arms export dependence

To calculate the export dependence of a country's DTIB, the following calculation was used:  
Export dependence is the share of exports in the total arms production of a country's DTIB.

- Share of export in total arms production = Arms exports / Total production \* 100.

To calculate total production, the formula is as follows:

- Total production = (procurement – imports) + arms exports

Export dependence thus is: arms exports/ total production \*100.

### 2. Datasets

In order to calculate export dependence, various data was thus necessary for each country under study: total arms exports; total arms imports; and procurement budgets.

Procurement data is taken from the 'United Nations Report on Military Expenditures' Database (<http://www.un-arm.org/Milex/home.aspx>). The database contains information provided by States to the UN on total military expenditure and 'military spending by resource cost' in national currencies. The categories for 'military spending by resource cost' are:

- Personnel
- Procurement and construction
- Research and development
- Operation and maintenance
- Not distributed

The national currency is converted into current US\$ using the International Monetary Fund (IMF) 'Exchange Rate Archives by Month' ([https://www.imf.org/external/np/fin/data/param\\_rms\\_mth.aspx](https://www.imf.org/external/np/fin/data/param_rms_mth.aspx)). The date of submission is used as the date for converting the national currency into current US\$.

Arms import data is taken from the US Department of State's 'World Military Expenditures and Arms Transfers 2014' (<http://www.state.gov/t/avc/rls/rpt/wmeat/2014/index.htm>).

Arms export data is taken from the SIPRI's dataset on 'The financial value of national arms exports, 2001-2013, in current US\$' ([http://www.sipri.org/research/armaments/transfers/measuring/research/armaments/transfers/measuring/financial\\_values](http://www.sipri.org/research/armaments/transfers/measuring/research/armaments/transfers/measuring/financial_values)). SIPRI uses official government data to construct its time series for the financial value of national arms exports.

### 3. Country tables

#### United States arms export dependence, 2002-2013

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Arms exports (Current US\$, millions)	10,347	9,734	11,396	11,137	11,461	12,410	11,725	16,270	13,075	13,398	13,990	16,524
Arms procurement (Current US\$, millions)	88,092	107,519	102,511	107,425	116,010	126,775	148,272	168,578	175,820	169,867	154,401	145,103
Arms imports (Current US\$, millions)	2,000	1,800	2,200	2,700	3,000	4,000	4,400	5,100	5,400	5,500		
Total arms production (Procurement - imports) + arms exports (Current US\$, millions)	96,439	115,453	111,707	115,862	124,471	135,185	155,597	179,748	183,495	177,765	168,391	161,627
Share of arms exports - Arms exports / total production * 100	11%	8%	10%	10%	9%	9%	8%	9%	7%	8%	8%	10%

Sources: SIPRI, 'The financial value of national arms exports, 2001-2013, in current US\$' ([http://www.sipri.org/research/armaments/transfers/measuring/research/armaments/transfers/measuring/financial\\_values](http://www.sipri.org/research/armaments/transfers/measuring/research/armaments/transfers/measuring/financial_values)); 'United Nations Report on Military Expenditures' Database (<http://www.un-arm.org/Milex/home.aspx>); US Department of State's 'World Military Expenditures and Arms Transfers 2014' (<http://www.state.gov/t/avc/rls/rpt/wmeat/2014/index.htm>).

#### UK arms export dependence, 2002-2007<sup>109</sup>

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Arms exports (Current US\$, millions)	6,175	7,421	9,451	82,31	8,642	10,953	--	--	--	--	--	--
Arms procurement (Current US\$, millions)	11,761	11,810	12,972	13,111	16,064	17,284	--	--	--	--	--	--
Arms imports (Current US\$, millions)	7,200	7,800	7,900	7,200	8,000	8,400	--	--	--	--	--	--
Total arms production (Current US\$, millions)	10,736	11,431	14,523	14,142	16,706	19,837	--	--	--	--	--	--
Share of arms exports	58%	65%	65%	58%	52%	55%	--	--	--	--	--	--

Sources: SIPRI, 'The financial value of national arms exports, 2001-2013, in current US\$' ([http://www.sipri.org/research/armaments/transfers/measuring/research/armaments/transfers/measuring/financial\\_values](http://www.sipri.org/research/armaments/transfers/measuring/research/armaments/transfers/measuring/financial_values)); 'United Nations Report on Military Expenditures' Database (<http://www.un-arm.org/Milex/home.aspx>); US Department of State's 'World Military Expenditures and Arms Transfers 2014' (<http://www.state.gov/t/avc/rls/rpt/wmeat/2014/index.htm>).

#### France arms export dependence, 2002-2013

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Arms exports (Current US\$, millions)	4,169	4,487	8,642	4,616	4,990	6,184	4,601	5,128	4,906	5,070	4,298	4,926
Arms procurement (Current US\$, millions)	7,129	8,901	10,356		12,213			11,174	15,819	14,286	13,482	14,761
Arms imports (Current US\$, millions)	2,400	2,400	2,000	2,400	2,100	1,400	1,600	1,400	1,500	1,600		
Total arms production (Current US\$, millions)	8,898	10,988	16,998		15,990	--	--	14,901	19,225	17,756	18,410	19,687
Share of arms exports	47%	41%	51%		31%	--	--	34%	26%	29%	23%	25%

Sources: SIPRI, 'The financial value of national arms exports, 2001-2013, in current US\$' ([http://www.sipri.org/research/armaments/transfers/measuring/research/armaments/transfers/measuring/financial\\_values](http://www.sipri.org/research/armaments/transfers/measuring/research/armaments/transfers/measuring/financial_values)); 'United Nations Report on Military Expenditures' Database (<http://www.un-arm.org/Milex/home.aspx>); US Department of State's 'World Military Expenditures and Arms Transfers 2014' (<http://www.state.gov/t/avc/rls/rpt/wmeat/2014/index.htm>) (additional source for French procurement budget 2010-2013: "Chiffres clés de la défense", <http://www.defense.gouv.fr/sga/le-sga-en-action/budget-finances-de-la-defense/budget/2015>).

#### Russia arms export dependence, 2002-2013

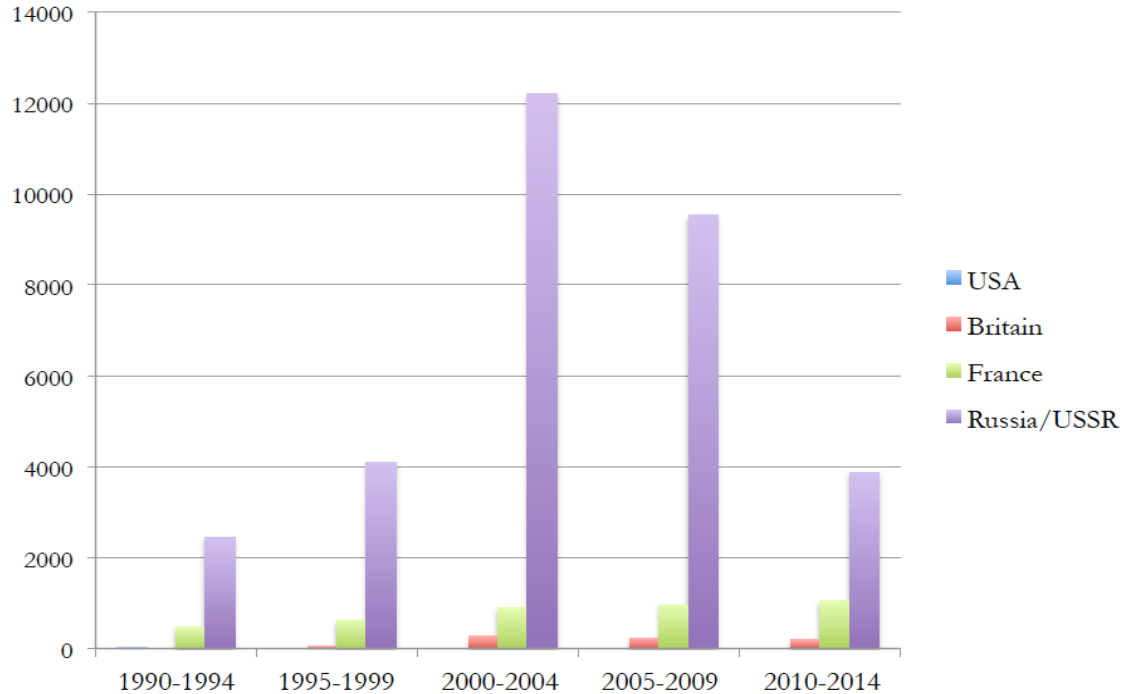
Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Arms exports (Current US\$, millions)	4,820	5,600	5,780	6,126	6,500	7,400	8,350	8,500	10,000	13,700	15,200	15,700
Arms procurement (Current US\$, millions)	748	2,664	3,692	6,228	7,588	7,402	6,699	9,473	7,952	11,894	9,217	8,459
Arms imports (Current US\$, millions)	2,100	2,900	1,900	1,700	1,300	1,100	1,200	1,200	700	600		
Total arms production (Current US\$, millions)	3,468	5,364	7,572	10,654	12,788	13,702	13,849	16,773	17,252	24,994	24,417	25,159
Share of arms exports	139%	104%	76%	57%	51%	54%	60%	51%	58%	55%	62%	65%

Sources: SIPRI, 'The financial value of national arms exports, 2001-2013, in current US\$' ([http://www.sipri.org/research/armaments/transfers/measuring/research/armaments/transfers/measuring/financial\\_values](http://www.sipri.org/research/armaments/transfers/measuring/research/armaments/transfers/measuring/financial_values)); 'United Nations Report on Military Expenditures' Database (<http://www.un-arm.org/Milex/home.aspx>); US Department of State's 'World Military Expenditures and Arms Transfers 2014' (<http://www.state.gov/t/avc/rls/rpt/wmeat/2014/index.htm>).

<sup>109</sup> Britain has stopped reporting on the value of its actual arms exports since 2007.

## List of tables and figures

Figure 1: P5 Arms Transfers to China, 1990-2014 (TIVs)



Source: SIPRI Arms Transfers Database (March 2016)

Table 1: P5 Arms Transfers to China, and Share of China's Arms Imports, 1989-2015 (TIVs)

	1990-1994	1995-1999	2000-2004	2005-2009	2010-2014
<b>Britain</b>	0 (0%)	60 (1%)	270 (2%)	230 (2%)	200 (3%)
<b>France</b>	471 (14.5%)	629 (12%)	903 (6%)	961 (8%)	1,038 (16%)
<b>Russia (USSR, 1990-1991)</b>	2,447 (75.5%)	4,107 (78%)	12,205 (87%)	9,534 (83%)	3,880 (59.5%)
<b>USA</b>	35 (1%)	4 (0%)	-	-	-
<b>Others</b>	283 (9%)	441 (8%)	587 (4%)	724 (6%)	1,394 (21.5%)
<b>China's total imports (TIV)</b>	3,236	5,241	13,965	11,449	6,512

Notes: Figures in the table are SIPRI Trend Indicator Values (TIVs)

'Others' includes Belarus, Germany, Israel, Italy, Japan, Switzerland and Ukraine.

(...) Denotes the exporter's share of China's imports of major conventional weapons

Source: SIPRI, 'Importer/exporter TIV Tables', accessed March 10, 2016,

<http://armstrade.sipri.org/armstrade/page/values.php>.

Table 2: U.S. Arms Export Dependence, 2002-2013

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>USA</b>	11	8	10	10	9	9	8	9	7	8	8	10

Sources: see Methodological Appendix

**Table 3: UK Arms Export Dependence, 2002-2013**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
UK	58	65	65	58	52	55	--	--	--	--	42	--

Sources: see Methodological Appendix. "--" signals a lack of data.

**Table 4: UK Arms Import Dependence on the U.S., 2001-2015**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
UK	98	52.7	56.1	77.1	55.6	35.1	37.5	86.2	72.9	65.8	58	68.4	64.7	77.7	95

Sources: SIPRI Arms Transfers Database (March 2016)

**Table 5: French Arms Export Dependence, 2002-2013**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
FRA	47	41	51	--	31	--	--	34	26	29	23	25

Sources: see Methodological Appendix. "--" signals a lack of data.

**Table 6: French Arms Import Dependence on the U.S., 2001-2015**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
FRA	100	46.5	29.8	83.9	100	3	0	20	0	49.5	70.6	42.4	50.5	100	26

Sources: SIPRI Arms Transfers Database (March 2016)

**Table 7: Russian Arms Export Dependence, 2002-2013**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
RUS	139	104	76	57	51	54	60	51	58	55	62	65

Sources: see Methodological Appendix. "--" signals a lack of data.

**Table 8: Russian Arms Import Dependence on the U.S., 2001-2015**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
RUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Sources: SIPRI Arms Transfers Database (March 2016)